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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,311	03/18/2004	Shawn D. Rogers	10599/131	5776

7590 11/21/2006  
Brinks Hofer Gilson & Lione  
P.O. Box 10395  
Chicago, IL 60610

EXAMINER

NGUYEN, HOA CAO

ART UNIT	PAPER NUMBER
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2841

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/803,311

Applicant(s)

ROGERS ET AL.

Examiner

Hoa C. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) 22-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-21 and 60-68 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Due to the discrepancy found in the Office action, mailed on 6/20/06, the Examiner decides to withdraw the Office action. The Examiner also thanks the applicants for pointing out the discrepancy. Indeed, the discrepancy is merely a typo error, in which claim 8 was rejected and claims 9-10 were objected. However, under the Reason for Allowance, the Examiner mistakenly named the limitation in claim 8 for the reason for allowance.

2. The amendment filed on 8/25/06 has been entered. Applicants have amended claims 1-8 and 12-21. Claims 60-68 are newly added. Claims 1-21 and 60-68 are treated on the merits in this Office action.

3. Due to the complexity of the amended claims and the newly added claims that further include a multiple embodiments of the claimed circuit board, the Examiner decides that a further Election/Restrictions is required based on the multiple embodiments of the claimed structure.

### ***Election/Restrictions***

4. This application contains claims directed to the following patentably distinct species:

Species 1: Figure 1, drawn to a first embodiment of the claimed circuit board having capacitive elements formed on the surface of the circuit board.

Species 2: Figure 2, drawn to another embodiment of the claimed circuit board having capacitive elements formed as conductive patches buried within the circuit board.

Species 3: Figure 3, drawn to another embodiment containing 5 different patch arrangements formed within a circuit board.

Species 4: Figures 4-5, drawn to another embodiment of the claimed circuit board having capacitive elements formed therein.

Species 5: Figures 6-7, drawn to another embodiment of the claimed circuit board having capacitive elements formed therein and surrounding a central metal plane.

Species 6: Figure 8, drawn to another embodiment of the claimed circuit board having an IC chip sitting on a layer above a C-plane.

Species 7: Figure 9, drawn to another embodiment of the claimed circuit board having capacitors formed on patches.

Species 8: Figure 12, drawn to another embodiment of the claimed circuit board having 8 layers server stack up with localized patches.

Species 9: Figure 13, drawn to another embodiment of patches arrangement.

Species 10: Figure 14, drawn to another embodiment of the claimed circuit board having signal lines formed in between capacitance elements.

Species 11: Figure 15, drawn to another embodiment of the claimed circuit board having signal lines formed adjacent to the capacitance element sections.

5. The species are independent or distinct because the details of each structure of each species are different from each other.

6. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is

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finally held to be allowable. Currently, the structure shown in figure 1 seems to be generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

7. Because of the complexities of the claimed structures, a telephone call was not made to request an oral election to the above restriction requirement, but a written election is requested instead.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Conclusion***

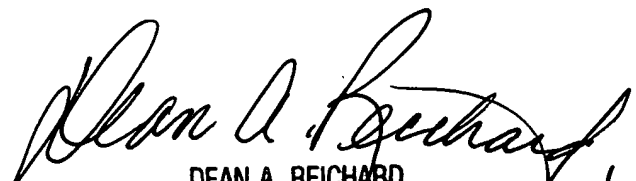
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa C. Nguyen whose telephone number is 571-272-8293. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reichard Dean can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoa C. Nguyen  
11/3/06

  
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